

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Roger E. Marchant Examiner : Roy R. Teller
Application No. : 10/823,218 Group Art : 1654
Filing Date : April 13, 2004 Docket No. : 26526-15
Confirmation No. : 4659

Title : METHODS OF MAKING AND USING SURFACTANT POLYMERS

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION TO WITHDRAW HOLDING OF ABANDONMENT

UNDER 37 CFR 1.181(a) OR IN THE ALTERNATIVE

PETITION TO REVIVE UNDER 37 CFR 1.137(a) OR IN THE ALTERNATIVE

PETITION TO REVIVE UNDER 37 CFR 1.137(b)

Dear Sir or Madam:

The Applicant in the above-identified application has received a Notice of Abandonment dated June 13, 2006 from the Office. Because Applicant believes the Notice improper for the reasons set forth below, Applicant hereby petitions the Office to withdraw the holding of abandonment under 37 CFR 1.181(a). In the alternative, if the abandonment is proper, Applicant hereby petitions the Office to revive the application as being unavoidably abandoned under 37 CFR 1.137(a). In the final alternative, Applicant petitions the Office to revive the application as being unintentionally abandoned under 37 CFR 1.137(b).

In re application of	:	Roger E. Marchant	Examiner	:	Roy R. Teller
Application No.	:	10/823,218	Group Art	:	1654
Filing Date	:	April 13, 2004	Docket No.	:	26526-15

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BACKGROUND

This application purportedly became abandoned for Applicant's failure to pay the issue fee within the allotted time period. The first official correspondence from the Office on this application was a Notice of Allowance mailed on July 29, 2005 (attachment A). During review of the Examiner's amendment with the Notice, Applicant noted that the allowed claims improperly included claims 13-15 that had previously issued in a parent application and were believed cancelled by Applicant's preliminary amendment (attachment B). To correct the Office's error and a typographical error, Applicant properly filed an Amendment after Allowance under 37 CFR § 1.312 (attachment C). Examiner Teller received the 312 Amendment and in a phone message he assured Applicant that the Amendment would be entered (attachment D). To date, Applicant has not received any record indication of entry and, according to a check of the PAIR system, the Office never sent an Advisory Action entering the 312 Amendment or marked the paper as "entered."

After numerous telephone calls to the Office regarding the status of the Amendment did not elicit even a return phone call, Applicant filed a Notice of Appeal on the non-extendable due date for the issue fee, October 31, 2005. While the application technically may not have been eligible for appeal, Applicant took the action in an attempt to maintain pendency of the application.

Further, a series of phone conferences thereafter with Examiner Teller and his supervisor, led Applicant to believe that prosecution had been re-opened. On one call, Applicant learned for the first time that a sequence listing was required in the application. In an effort to advance the application without waiting for official correspondence requiring a sequence listing (which has never been mailed), Applicant prepared and filed a suitable listing on December 9, 2005.

As no official communication from the Office had arrived within the two month period after filing the Notice of Appeal, Applicant timely filed an Appeal Brief on January 3, 2006. It is noteworthy that none of the appeal correspondence has been acted upon by the Office to date.

On January 10, 2006, the Office mailed a Notice to Comply for defects in the filed sequence listing. This Notice gave Applicant an extendable period of one month to reply. Applicant properly filed a satisfactory reply on February 10, 2006.

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The next and most recent correspondence was a Notice of Abandonment from the Office.

DISCUSSION

I. Withdrawal of holding of abandonment

Applicant believes that the Notice of Abandonment is improper and should be withdrawn for two reasons. First, the Office has abused its discretion in this matter. The Examiner improperly introduced cancelled claims into the application and then ignored a proper attempt to correct the error through an Amendment After Allowance under 37 CFR § 1.312. To date, the defects are believed to remain despite the Office's false assurance that the Amendment would be entered. Subsequently, the Office's continued neglect resulted in Applicant's failed attempt to save the application by filing both a Notice of Appeal and, later, an Appeal Brief. Because the Office failed to indicate that the Appeal was improper or otherwise was unsuccessful to save the application, Applicant's first hint that something was amiss was the receipt of the Notice of Abandonment.

If Applicant's initial attempt to remedy the error, that is, if the 312 amendment were entered and acknowledged with an Advisory Action or other official action, this application would have issued by now. Applicant therefore petitions the Office to withdrawal the holding of abandonment on the basis that the Office has abused its discretion in this application.

Secondly, and independently, the Notice of Abandonment is improper because the Office reopened prosecution in this application following the Notice of Allowance. At some time between the Notice of Allowance and December 9, 2006 when the sequence listing was filed, the Office noted the need for a sequence listing in the application. The Office communicated the need to Applicant during a phone conference, after which Applicant prepared and filed the requested sequence listing without waiting for a formal request from the Office. While Applicant is not certain of the timing of the Office's recognition of the need for a sequence listing, that is, whether it was before or after the three month statutory period in which to file the issue fee, Applicant believes Examiner Teller and his supervisor recognized the need upon receipt of the 312 Amendment. Thus, sometime in September 2005 (before the issue fee deadline passed) the Office likely noted the need for Applicant to file a sequence listing and reopened prosecution but failed to inform Applicant in writing. The

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eventual re-opening of prosecution is confirmed by Applicant's receipt of a Notice to Comply that included an extendable period for reply. Because prosecution of the application was re-opened prior to passage of the time to pay the issue fee, Applicant petitions the Office to withdraw the holding of abandonment as improper.

II. Revival of application as unavoidably abandoned

If the holding of abandonment is proper, Applicant petitions the Office to revive the application as being unavoidably abandoned for the reasons set forth below. On July 29, 2005 the Office mailed a Notice of Allowance with an Examiner's amendment that placed the application into a condition where it could not be allowed. Specifically, the application contained claims 13-15 that had already issued in Applicant's issued parent patent, U.S. Pat. No. 6,759,388. In other words, if the application issued in the form allowed, it would have contained claims that were facially invalid under 35 U.S.C. § 101 for statutory double patenting. Because Applicant's attempts to correct the error prior to issue were at best, unacknowledged, Applicant's failure to timely pay the issue fee was caused by the Office's own actions and thus, was unavoidable.

III. Revival of application as unintentionally abandoned

If the holding of abandonment is proper, and if the abandonment was avoidable, Applicant petitions the Office to revive the application as being unintentionally abandoned for the reasons set forth below. While Applicant was attempting to correct errors introduced by the Office prior to issue, the statutory period for payment of the issue fee passed unintentionally. The entire delay in filing the issue fee was unintentional. Therefore Applicant's failure to timely pay the issue fee was unintentional.

CONCLUSION

As the primary petition here is one under 1.181(a) and no fee is required (MPEP 711.03(c)), and because Applicant claims small entity status, Applicant submits herewith a Credit Card Payment Form (PTO Form 2038) authorizing the Office to charge the issue fee, which is \$700.00 for a small entity, and the publication fee, which is \$300.00, to the credit card number indicated on the Form.

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Should any of the alternative petitions presented here be accepted instead, and require additional fees, the Office is hereby authorized to charge any additional fees to Deposit Account No. 02-2051.

A duplicate of this petition is attached.

Respectfully submitted,

Dated: August 11, 2006

By:



W. Scott Harders

Reg. No. 42,629

BENESCH, FRIEDLANDER
COPLAN & ARONOFF L.L.P.
2300 BP Tower
200 Public Square
Cleveland, OH 44114-2378
(216) 363-4443



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

21130 7590 07/29/2005

BENESCH, FRIEDLANDER, COPLAN & ARONOFF LLP
ATTN: IP DEPARTMENT DOCKET CLERK
2300 BP TOWER
200 PUBLIC SQUARE
CLEVELAND, OH 44114

EXAMINER

TELLER, ROY R

ART UNIT

PAPER NUMBER

1654

DATE MAILED: 07/29/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,218	04/13/2004	Roger E. Marchant	26526.15	4659

TITLE OF INVENTION: METHODS OF MAKING AND USING SURFACTANT POLYMERS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	10/31/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
(571) 273-2885

or Fax

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

21130 7590 07/29/2005

BENESCH, FRIEDLANDER, COPLAN & ARONOFF LLP
ATTN: IP DEPARTMENT DOCKET CLERK
2300 BP TOWER
200 PUBLIC SQUARE
CLEVELAND, OH 44114

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,218	04/13/2004	Roger E. Marchant	26526.15	4659

TITLE OF INVENTION: METHODS OF MAKING AND USING SURFACTANT POLYMERS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	10/31/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
TELLER, ROY R	1654	514-008000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1

2

3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

☐ Issue Fee☐ Publication Fee (No small entity discount permitted)☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

☐ A check in the amount of the fee(s) is enclosed.☐ Payment by credit card. Form PTO-2038 is attached.☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,218	04/13/2004	Roger E. Marchant	26526.15	4659

21130 7590 07/29/2005

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200 PUBLIC SQUARE
CLEVELAND, OH 44114

EXAMINER

TELLER, ROY R

ART UNIT

PAPER NUMBER

1654

DATE MAILED: 07/29/2005

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 46 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 46 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

Notice of Allowability

Application No.

10/823,218

Examiner

Roy Teller

Applicant(s)

MARCHANT ET AL.

Art Unit

1654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to divisional application filed 4/13/04.
2. ☒ The allowed claim(s) is/are 9-20.
3. ☒ The drawings filed on 13 April 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 8/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Art Unit: 1654

DETAILED ACTION

The divisional application, filed 4/13/04, has been received and entered. Claims 1-20 have been presented for examination on the merits. Claims 1-8 are cancelled by examiner's amendment.

Information Disclosure Statement

The information disclosure statement, received 8/26/04, is acknowledged. A signed copy is enclosed hereto.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Todd Sladek on 7/20/05.

Art Unit: 1654

IN THE CLAIMS:

Cancel claims 1-8.

In claim 12, at lines 2-3, the phrase " RGD, RRAR, RRKRR, PRRARVT, and PPREVVRPR" has been omitted and replaced with -- SEQ ID NO: 1 (RGD), SEQ ID NO: 4 (RRAR), SEQ ID NO: 5 (RRKRR), SEQ ID NO: 6 (PPRARVT), and SEQ ID NO: 7 (PPREVVRPR) --.

In claim 14, at line 3, the phrase " RGD, RRAR, RRKRR, PRRARVT, and PPREVVRPR" has been omitted and replaced with -- SEQ ID NO: 1 (RGD), SEQ ID NO: 4 (RRAR), SEQ ID NO: 5 (RRKRR), SEQ ID NO: 6 (PPRARVT), and SEQ ID NO: 7 (PPREVVRPR) --.

Claims 9-20 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy Teller whose telephone number is 571-272-0971. The examiner can normally be reached on Monday-Friday from 5:30 am to 2:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell, can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1654

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RT
7/20/05

RT



BRUCE R. CAMPELL, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600



Approved for use through 07/31/2006, OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449/PTO

(Use as many sheets as necessary)

Sheet	1	of	2
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Complete if Known

Application Number	10/823,218
Filing Date	April 13, 2004
First Named Inventor	Roger E. MARCHANT
Art Unit	3681
Examiner Name	Not yet assigned
Attorney Docket Number	26526.15

U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner
Signature**

R. Teller

Date Considered

6-28-05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known			
		Application Number	10/823,218		
		Filing Date	April 13, 2004		
		First Named Inventor	Roger E. MARCHANT		
		Art Unit	3681		
		Examiner Name	Not yet assigned		
Sheet	2	of	2	Attorney Docket Number	26526.15

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
RT	BA	"Biosynthetic Surfactants: Novel Biomimetic Surface Modifications for Biomedical Deposit Resistance" by Marchant et al., American Chemical Society Conference, September 1997.	
	BB	"Novel Nonionic Oligosaccharide Surfactant Polymers Derived from Poly(vinylamine) with Pendant Dextran and Hexanoyl Groups" by Qiu, et al., Macromolecules, 1998, 31, pp.165-171	
	BC	"Biomimetic engineering of non-adhesive glycocalyx-like surfaces using oligosaccharide surfactant polymers" by Holland, et al. Nature, Vol. 392, April 23, 1998, pp. 799-801.	
	BD	"Integrin-Dependent Interaction of Human Vascular Endothelial Cells on Biomimetic Peptide Surfactant Polymers" by Murugesan et al., Cell Communication and Adhesion,	
		Vol. 9, No. 2, pp. 59-73, 2002.	

Examiner Signature	R. Teller	Date Considered	6-28-05
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

NEW CENTRAL FAX NUMBER

Effective July 15, 2005

On July 15, 2005, the Central FAX Number will change to **571-273-8300**. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005.

After September 15, 2005, the old number will no longer be in service and **571-273-8300** will be the only facsimile number recognized for "centralized delivery".

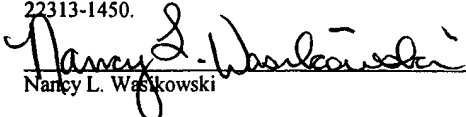
CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

CERTIFICATE OF EXPRESS MAILING PROCEDURE

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Date of Deposit: April 13, 2004

I hereby certify that this **FIRST PRELIMINARY AMENDMENT** is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to: **Mail Stop Patent Application**, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Nancy L. Wasikowski

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF : MARCHANT, Roger E., et al.
TITLE : **METHODS OF MAKING AND USING
SURFACTANT POLYMERS**
SERIAL NO. : Unknown
FILING DATE : Herewith
ATTORNEY DOCKET NO. : 26526-15

FIRST PRELIMINARY AMENDMENT

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

Prior to the examination of the above-identified application, it is respectfully requested that the following amendments be entered in the above-referenced application. Please amend the subject application as follows.

AMENDMENTS TO THE SPECIFICATION

Please add the following section to the beginning of the specification:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a divisional of prior Application No. 09/302,195, filed April 29, 1999, which claims the benefit of Provisional Application No. 60/083,544, filed April 29, 1998.

Please replace the Title of the application with the following amended title:

METHODS OF MAKING AND USING SURFACTANT POLYMERS

AMENDMENTS TO THE CLAIMS

Please cancel claims 1-8 and 13-15. Claims 9-12 and 16-20 are pending in the present case.

Listing of Claims:

Claims 1-8 (canceled)

Claim 9 (original): A method of reducing the thrombogenicity of a hydrophobic surface of a substrate: comprising:

- a) providing a comblike surfactant polymer comprising:
 - i) a polymeric backbone of repeating monomeric units,
 - ii) a plurality of hydrophobic side chains comprising from about 2 to about 18 methylene groups, said plurality of hydrophobic side chains being linked to said polymeric backbone by ester linkages, secondary amine linkages, amide linkages; or combinations thereof and
 - iii) a plurality of hydrophilic side chains linked to said polymeric backbone by ester linkages, secondary amine linkages, amide linkages, or combinations thereof; said hydrophilic side chains selected from the group consisting of: neutral oligosaccharide side chains having a weight average molecular weight of less than 7000; charged oligosaccharide side chains having a weight average molecular weight of less than 10,000, polyethylene oxide; and combinations thereof,
- b) attaching the comblike surfactant polymer to the hydrophobic substrate to provide a substrate with reduced thrombogenicity.

Claim 10 (original): The method of claim 9 wherein said surfactant polymer is attached to said surface by immersing said surface into an aqueous solution containing said surfactant polymer.

Claim 11 (original): A method of promoting attachment of endothelial cells to the surface of a hydrophobic surface comprising:

- a) providing a comblike surfactant polymer comprising:
 - i) a polymeric backbone of repeating monomeric units,

ii) a plurality of hydrophobic side chains comprising from about 2 to about 18 methylene groups, said plurality of hydrophobic side chains being linked to said polymeric backbone by secondary amine linkages, amide linkages; or combinations thereof and

iii) a plurality of hydrophilic side chains linked to said polymeric backbone by secondary amine linkages said hydrophilic side chains comprising an oligopeptide of from about 3 to 30 amino acid residues and having an amino acid sequence which interacts with protein receptors on the surface of endothelial cells

b) attaching the comblike surfactant polymer to the hydrophobic substrate.

Claim 12 (original): The method of claim 11 wherein said oligopeptide side chains comprise an amino acid sequence selected from the group consisting of: RGD, RRAR, RRKRR, PPRRARVT, and PPREVVRPR.

Claims 13-15 (canceled)

Claim 16 (original): A method of preparing a surfactant polymer for changing the surface properties of a biomaterial comprising the following steps:

a) providing a polymer comprising a plurality of side groups selected from the group consisting of OH groups, COOH groups and NH₂ groups;

b) reacting said polymer with

i) an alkanoyl or an alkanal having an end for reacting with the side groups of said polymer; and

ii) a hydrophilic compound selected from the group consisting of neutral oligosaccharide chains having an end for reacting with the side groups of said polymer, charged oligosaccharide chains having an end for reacting with the side groups of said polymer, oligopeptides having an end for reacting with the side groups of said polymer, and combinations thereof;

wherein said alkanal and said alkanoyl comprise from 2 to 18 methylene groups;

wherein said neutral oligosaccharide chains have a weight average molecular weight of less than 7000;

wherein said charged oligosaccharide chains have a weight average molecular weight of less than 10,000; and

wherein said oligopeptides comprise from about 3 to 30 amino acid residues and a sequence which interact with protein receptors on the surface of endothelial cells.

Claim 17 (original): The method of claim 16 wherein said polymer is selected from the group consisting of poly(vinyl amine), poly(vinyl alcohol), and poly(lysine).

Claim 18 (original): The method of claim 16 wherein said polymer is simultaneously reacted with said alkanal or said alkanoyl and said hydrophilic compound.

Claim 19 (original): The method of claim 16 wherein the molar feed ratio of said hydrophilic compound to said alkanal or said alkanoyl is from 3:1 to 1:6.

Claim 20 (original): The method of claim 16 further comprising the step of capping any unreacted amine groups.

REMARKS

This application is a divisional of prior Application No. 09/302,195, filed April 29, 1999, which claims the benefit of priority of Provisional Application No. 60/083,544, filed April 29, 1998. Applicant has amended the specification to indicate this claim of priority.

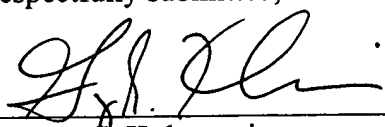
Pursuant to 37 C.F.R. §1.115(b)(2), Applicant submits herewith a preliminary amendment canceling claims 1-8 and 13-15. Claims 9-12 and 16-20 are originally filed claims and are to be considered during the examination of the present application.

If any additional fees are due regarding this submission, the Commissioner is authorized to charge such fees to Deposit Account No. **02-2051**, identifying Attorney Docket No. **26526-15**.

Respectfully submitted,

Dated: April 13, 2004

By: _____


Gregory S. Kolocouris
Reg. No. 47,714

**BENESCH, FRIEDLANDER,
COPLAN & ARONOFF LLP**
2300 BP Tower
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PATENT APPLICATION

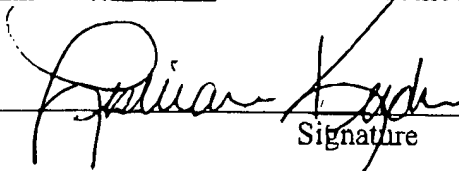
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Roger E. Marchant Examiner : Roy R. Teller
Application No. : 10/823,218 Group Art : 1654
Filing Date : April 13, 2004 Docket No. : 26526-15
Confirmation No. : 4659
Title : METHODS OF MAKING AND USING SURFACTANT POLYMERS

CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this Communication and associated papers is being facsimile transmitted to
Examiner Roy R. Teller at the United States Patent and Trademark Office

on September 15, 2005 to facsimile number. (571) 273-8300.



Signature

Leslie Ann Kuder

Typed or printed name of person signing Certificate

Associated Papers:

1. Transmittal Form (1 Page);
2. Amendment After Allowance (5 pages)

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Roger E. Marchant Examiner : Roy R. Teller
Application No. : 10/823,218 Group Art : 1654
Filing Date : April 13, 2004 Docket No. : 26526-15
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Title : METHODS OF MAKING AND USING SURFACTANT POLYMERS

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on September 15, 2005 to facsimile number. (571) 273-8300.



Signature

Leslie Ann Kuder

Typed or printed name of person signing Certificate

Associated Papers:

1. Transmittal Form (1 Page);
2. Amendment After Allowance (5 pages)

Note: Each paper must have its own certificate of transmission, or this certificate must identify each submitted paper.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	Roger E. Marchant	Examiner	:	Roy R. Teller
Application No.	:	10/823,218	Group Art	:	1654
Filing Date	:	April 13, 2004	Docket No.	:	26526-15
Confirmation No.	:	4659			

Title : METHODS OF MAKING AND USING SURFACTANT POLYMERS

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AFTER ALLOWANCE UNDER 37 C.F.R. § 1.312

Dear Examiner:

This is in response to the Notice of Allowance dated July 29, 2005 and before payment of the Issue Fee. Please amend the application as follows:

Amendments to the Claims are made in the listing that begins on page 2 of this paper.

Remarks begin thereafter.

IN THE CLAIMS:

1-8 (canceled)

9. (currently amended) A method of reducing the thrombogenicity of a hydrophobic surface of a ~~substrate~~: substrate comprising:

- a) providing a comblike surfactant polymer comprising:
 - i) a polymeric backbone of repeating monomeric units,
 - ii) a plurality of hydrophobic side chains comprising from about 2 to about 18 methylene groups, said plurality of hydrophobic side chains being linked to said polymeric backbone by ester linkages, secondary amine linkages, amide linkages; or combinations thereof and
 - iii) a plurality of hydrophilic side chains linked to said polymeric backbone by ester linkages, secondary amine linkages, amide linkages, or combinations thereof; said hydrophilic side chains selected from the group consisting of: neutral oligosaccharide side chains having a weight average molecular weight of less than 7000; charged oligosaccharide side chains having a weight average molecular weight of less than 10,000, polyethylene oxide; and combinations thereof,

b) attaching the comblike surfactant polymer to the hydrophobic substrate to provide a substrate with reduced thrombogenicity.

10. (original) The method of claim 9 wherein said surfactant polymer is attached to said surface by immersing said surface into an aqueous solution containing said surfactant polymer.

11. (original) A method of promoting attachment of endothelial cells to the surface of a hydrophobic surface comprising:

- a) providing a comblike surfactant polymer comprising:
 - i) a polymeric backbone of repeating monomeric units,
 - ii) a plurality of hydrophobic side chains comprising from about 2 to about 18 methylene groups, said plurality of hydrophobic side chains being linked to said

polymeric backbone by secondary amine linkages, amide linkages; or combinations thereof and

iii) a plurality of hydrophilic side chains linked to said polymeric backbone by secondary amine linkages said hydrophilic side chains comprising an oligopeptide of from about 3 to 30 amino acid residues and having an amino acid sequence which interacts with protein receptors on the surface of endothelial cells

b) attaching the comblike surfactant polymer to the hydrophobic substrate.

12. (currently amended) The method of claim 11 wherein said oligopeptide side chains comprise an amino acid sequence selected from the group consisting of: SEQ ID NO: 1 (RGD), SEQ ID NO: 4 (RRAR), SEQ ID NO: 5 (RRRKRR), SEQ ID NO: 6 (PPRRARVT), and SEQ ID NO: 7 (~~PPREVPRPR~~ PPREVVPRPRP).

13-15 (canceled)

16: (original) A method of preparing a surfactant polymer for changing the surface properties of a biomaterial comprising the following steps:

a) providing a polymer comprising a plurality of side groups selected from the group consisting of OH groups, COOH groups and NH₂ groups;

b) reacting said polymer with

i) an alkanoyl or an alkanal having an end for reacting with the side groups of said polymer; and

ii) a hydrophilic compound selected from the group consisting of neutral oligosaccharide chains having an end for reacting with the side groups of said polymer, charged oligosaccharide chains having an end for reacting with the side groups of said polymer, oligopeptides having an end for reacting with the side groups of said polymer, and combinations thereof;

wherein said alkanal and said alkanoyl comprise from 2 to 18 methylene groups;

wherein said neutral oligosaccharide chains have a weight average molecular weight of less than 7000;

wherein said charged oligosaccharide chains have a weight average molecular weight of less than 10,000; and

wherein said oligopeptides comprise from about 3 to 30 amino acid residues and a sequence which interact with protein receptors on the surface of endothelial cells.

17. (original) The method of claim 16 wherein said polymer is selected from the group consisting of poly(vinyl amine), poly(vinyl alcohol), and poly(lysine).
18. (original) The method of claim 16 wherein said polymer is simultaneously reacted with said alkanal or said alkanoyl and said hydrophilic compound.
- 19.: (original) The method of claim 16 wherein the molar feed ratio of said hydrophilic compound to said alkanal or said alkanoyl is from 3:1 to 1:6.
20. (original) The method of claim 16 further comprising the step of capping any unreacted amine groups.

REMARKS

This Amendment is submitted after allowance and before payment of the Issue Fee in accordance with the provisions of 37 C.F.R. § 1.312.

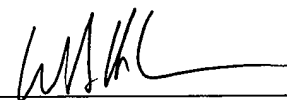
The amendments above merely clarify the particular claims remaining in this application. The present application is a divisional of serial number 09/302,195, now U.S. Patent No. 6,759,388. In the present application, the Notice of Allowance mailed July 29, 2005, indicated claims 9-20 were allowed. However, claims 13-15 appear in the parent, U.S. Patent No. 6,759,388, as claims 9-11. Accordingly, the Preliminary Amendment filed with this divisional application on April 13, 2004, cancelled these claims. Thus, for certainty, the claims remaining and allowed in the present application should be 9-12 and 16-20 as shown in the claim listing immediately preceding this section.

Additionally, Applicant noted one apparent typographical error in claim 12. Specifically, SEQ ID NO: 7 was mistakenly listed as "PPREVVPRPR" where the accurate sequence listing is instead "PPREVVPRPRP". This Amendment is additionally reflected in the claim listing above.

Support for these amendments can be found in the application as originally filed including page 7, lines 15-25. No new matter is believed to have been entered in the making of these amendments. Moreover, Applicant believes there is no effect on the status of the allowability of the present application based on these amendments. For these reasons, entry of this Amendment in accordance with 37 C.F.R. § 1.312 is respectfully requested.

Respectfully submitted,

Dated: 15 SEP 2005

By: 
W. Scott Harders
Registration No. 42,629

BENESCH, FRIEDLANDER,
COPLAN & ARONOFF, LLP
2300 BP Tower
200 Public Square
Cleveland, OH 44114-2378
(216) 363-4443

MEMORANDUM

To: File 26526-15

FROM: W. Scott Harders

DATE: October 28, 2005

SUBJECT: Response to 312 Amendment

Telephone message received on October 11, 2005 from Examiner Roy Teller:

Mr. Harders this is Roy Teller from the U.S. Patent and Trademark Office I am returning your call with regards to 10/823,218. We received the 312 amendment and it looks fine and will be entered. If you have any questions, please give me a call.

WSH:lak